Cisco IOS/CCP - DMVPN configureren met Cisco CP

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Inleiding

Dit document biedt een voorbeeldconfiguratie voor Dynamic Multipoint VPN (DMVPN) tunnel tussen hub en gedeelde routers met Cisco Configuration Professional (Cisco CP). Dynamic Multipoint VPN is een technologie die verschillende concepten integreert zoals GRE, IPSecencryptie, NHRP en Routing om een geavanceerde oplossing te bieden die de eindgebruikers in staat stelt effectief te communiceren via de dynamisch gemaakte IPSec-tunnels met een spaak.

Voorwaarden

Vereisten

Voor de beste DMVPN-functionaliteit wordt aanbevolen om Cisco IOS® softwarerelease 12.4, hoofdlijn 12.4T en hoger uit te voeren.

Gebruikte componenten

De informatie in dit document is gebaseerd op de volgende software- en hardware-versies:

- Cisco IOS-router 3800 Series met softwarerelease 12.4(22)XR
- Cisco IOS-router 1800 Series met softwarerelease 12.3(8)
- Cisco Configuration Professional versie 2.5

De informatie in dit document is gebaseerd op de apparaten in een specifieke laboratoriumomgeving. Alle apparaten die in dit document worden beschreven, hadden een opgeschoonde (standaard)configuratie. Als uw netwerk live is, moet u de potentiële impact van elke opdracht begrijpen.

Conventies

Raadpleeg de Cisco Technical Tips Convention voor meer informatie over documentconventies.

Achtergrondinformatie

Dit document geeft informatie hoe u een router als een gezochte router en een andere router als een hub kunt configureren met behulp van Cisco CP. Aanvankelijk gesproken configuratie wordt getoond, maar later in het document wordt de configuratie van de hub-gerelateerde ook in detail weergegeven om een beter begrip te bieden. Andere spokes kunnen ook worden geconfigureerd met behulp van de gelijksoortige benadering om verbinding te maken met een hub. Bij het huidige scenario worden deze parameters gebruikt:

- Hub routernetwerk 209.165.201.0
- Tunnelnetwerk 192.168.10.0
- Routing Protocol gebruikt OSPF

Configureren

Deze sectie bevat informatie over het configureren van de functies die in dit document worden beschreven.

Opmerking: Gebruik het <u>Opname Gereedschap</u> (<u>alleen geregistreerde</u> klanten) om meer informatie te verkrijgen over de opdrachten die in deze sectie worden gebruikt.

Netwerkdiagram

Het netwerk in dit document is als volgt opgebouwd:



Spraakconfiguratie met Cisco CP

Deze paragraaf laat zien hoe u een router als gesproken kunt configureren met behulp van de stapsgewijze DMVPN-wizard in Cisco Configuration Professional.

 Om de Cisco CP-toepassing te starten en de wizard DMVPN te starten, gaat u naar Configureren > Security > VPN > Dynamic Multipoint VPN. Selecteer vervolgens de optie Een onderwerp maken in een DMVPN en klik op De geselecteerde taak starten.

reate Dynamic Multipoint VPN (DMVPN)	Edit Dynamic Multipoint VPN (DMVPN)	
Configure DMVPN Spoke		
Spoke 1 Daven Class	a	
Create a spoke (client) in a DMVPN Use this option to configure the ro and spoke network topology. To co know the hub's IP address, NHRP policy, IPSec Transform set and dy	uter as a spoke in a full mesh or hub omplete this configuration, you must information, pre-shared key, IKE mamic routing protocol information.	
 Create a spoke (client) in a DMVPN Use this option to configure the rol and spoke network topology. To co know the hub's IP address, NHRP policy, IPSec Transform set and dy Create a hub (server or head-end) is Use this option to configure the rol are configuring a backup hub, you information, pre-shared key, IKE p dynamic routing protocol information 	uter as a spoke in a full mesh or hub omplete this configuration, you must information, pre-shared key, IKE mamic routing protocol information. IN DMVPN uter as a primary or backup hub. If you must know the primary hub's NHRP olicy, IPSec Transform set and on.	
 Create a spoke (client) in a DMVPN Use this option to configure the rou and spoke network topology. To con- know the hub's IP address, NHRP policy, IPSec Transform set and dy Create a hub (server or head-end) in Use this option to configure the rou are configuring a backup hub, you information, pre-shared key, IKE p dynamic routing protocol information 	uter as a spoke in a full mesh or hub omplete this configuration, you must information, pre-shared key, IKE mamic routing protocol information. n a DMVPN uter as a primary or backup hub. If you must know the primary hub's NHRP olicy, IPSec Transform set and on.	

2. Klik op *Volgende* om te beginnen.

DMVPN Spoke Wizard	
VPN Wizard	Configure a DMVPN spoke
	DMVPN allows you to create a scalable network that connects multiple remote routers to a central hub router using the same security features offered by site-to-site VPNs. DMVPN uses IPSec, NHRP, GRE and routing protocols to create secure tunnels between a hub and a spoke. This wizard allows you to configure the router as a DMVPN spoke. The wizard guides you through these tasks: * Specifying the DMVPN network topology. * Providing hub information. * Configuring a GRE tunnel interface. * Configuring a pre-shared key. * Configuring in IPSec transform set. * Configuring a dynamic routing protocol. To begin, click Next.
	Back Next> Finish Cancel Help

3. Selecteer de optie *Hub and Spoke Network* en klik op *Volgende*.



4. Specificeer de informatie over de hub, zoals de openbare interface van de hubrouter en de tunnelinterface van de hubrouter.

DMVPN Spoke Wizard (H	ub and Spoke Topology) - 20% Complete	
VPN Wizard	Specify Hub Information Enter the IP address of the hub and the IP addre Contact your network administrator to get this in	ess of the hub's mGRE tunnel interface. formation.
	Hub Information IP address of hub's physical interface:	209.165.201.2
	Spoke You are configuring this spoke router Paddress of the mG to be entered above	Iblic IP address be entered above Hub RE tunnel
	<u><</u>	Back Next > Finish Cancel Help

5. Specificeer de details van de tunnelinterface van het woord en de openbare interface van het woord. Klik vervolgens op *Geavanceerd*.

VPN Wizard	GRE Tunnel Interface Configuration	
an in second	Select the interface that connects to the	Internet: FastEthernet0
	 Selecting an interface configured for be always up. GRE Tunnel Interface A GRE tunnel interface will be created address information for this interface. IP address of the tunnel interface IP Address: 192.168.10.5 Subnet Mask: 255.255.255.0 24 	r a dialup connection may cause the connection to I for this DMVPN connection. Please enter the Advanced settings Click Advanced to verify that values match peer settings.
	Interface connected to Internet. This is the interface from which GRE/mGRE Tunnel originaties. Internet DMVPN Cloud	Logical GRE/mGRE Tunnel interface. IP address of GRE/mGRE tunnel interface on all hubs and spoke routers are private IP addresses and must be in the same subnet. For more information please click the help button.

6. Controleer de tunnelparameters en NHRP parameters en zorg ervoor dat ze perfect

Some of the following parameter in all devices in this DMVPN. Obt from your network administrator Cisco CP defaults.	is should be identical ain the correct values before changing the
NHRP Authentication String:	DMVPN_NW
NHRP Network ID:	100000
NHRP Hold Time:	360
GRE Tunnel Interface Inform	nation
Tunnel Key:	100000
Bandwidth:	1000
MTU:	1400
Tunnel Throughput Delay:	1000

overeenkomen met de Hub parameters.

7. Specificeer de vooraf gedeelde toets en klik op

volgende.		
DMVPN Spoke Wizard (Hu	b and Spoke Topology) - 40% Complete
VPN Wizard	Authentication Select the method your DMVPN network. You c the router must have a on this router must mai	want to use to authenticate this router to the peer device(s) in the an use digital certificate or a pre-shared key. If digital certificate is us valid certificate configured. If pre-shared key is used, the key configu tch the keys configured on all other routers in the DMVPN network.
		< Back Next > Finish Cancel Help

8. Klik op *Toevoegen* om een afzonderlijk IKE-voorstel toe te voegen.

DMVPN Spoke Wizard (Hub and Spoke Topology) - 50% Complete

VPN Wizard

IKE Proposals

IKE proposals specify the encryption algorithm, authentication algorithm and key exchange method that is used by this router when negotiating a VPN connection with the remote device. For the VPN connection to be established with the remote device, the remote device should be configured with at least one of the policies listed below.

Click the Add... button to add more policies and the Edit... button to edit an existing policy.

and the second s		Priority	Encryption	Hash	D-H Group	Authentication	Туре
	2	1	3DES	SHA_1	group2	PRE_SHARE	Cisco CP Defa
18 2 A							
1							
		dd)	Edit	1			
1 March	Ē		Accession of the second	J			
100							
					A CONTRACT OF A		12

9. Specificeer de parameters voor codering, verificatie en hantering. Klik vervolgens op

4	IFRE ORARE		
	1002		
Encryption:	D-H Group:		
AES_192	group1 💉		
Hash:	Lifetime:		
SHA_1	24 0 0 HH:MM:S		

10. Het nieuwe IKE-beleid is hier te zien. Klik op *Volgende.*

Priority	Encryption 3DES	Hash SHA 1	D-H Group	Authentication	Туре
2	3DES	SHA 1			
2	ACC 102	G1 8 1 1	group2	PRE_SHARE	Cisco CP Defa
Add	Edit]			
	Add	Add	Add	Add Edit	Add Edit.

11. Klik op *Volgende* om door te gaan met de standaardinstelling voor het omzetten.

VPN Wizard	Click the transfor	orm Set form set specifies the VPN tunnel. Si inicate, the remote ected below. e Add button to a m set. Transform Set: Sisco CP Default T	the encryption and autince the two devices mudevices must be configuded and a new transform setem se	hentication algorit ust use the same ured with the sam t and the Edit bu	hms used to protect the algorithms to re transform set as the itton to edit the specified	d
	Deta	ails of the specifie	d transform set			1
BF		ESP-3DES-SHA	ESP_3DES	ESP_SHA_HMAC		
		Add	<	Back Next >	inish Cancel He	elp

12. Selecteer het gewenste routingprotocol. Hier is *OSPF* geselecteerd.

DMVPN Spoke Wizard (Hi	ub and Spoke Topology) - 70% Complete	×
VPN Wizard	Select Routing Protocol Routing protocols are used to advertise private networks behind this router to other routers in the DMVPN. Select the dynamic routing protocol you want to use. Note: You can only create as many OSPF processes as the number of interfaces that are configured with an IP address and have the status administratively up. CEIGRP COSPFE	
	< Back (Next>) Finish Cancel Help	,

 Specificeer de OSPF-proces-ID en -id. Klik op Add om de netwerken toe te voegen die door OSPF moeten worden geadverteerd.



- 14. Voeg het tunnelnetwerk toe en klik op OK.
- 15. Voeg het privé netwerk achter de uitgesproken router toe. Klik vervolgens op *Volgende*.

lizard Routing Information	Ç.					
C Select an existing	OSPF process ID					
· Create a new OS	PF process ID:		10			
OSPF Area ID for tur	OSPF Area ID for tunnel network: 2					
Add the private networks	orks that you want i the other routers to advertised using	to advertise to t o send and rec OSPF	he other routers in this C eive these advertisemen			
Network	Wildcard Mask	Area	Add			
192.168.10.0	0.0.0.255	2	Edd			
172.16,18.0	0.0.0.255	2	Delete			
Private Network to advertised to the	hat will be DMIVPN cloud.					
	ALC: NO					

16. Klik op *Voltooien* om de configuratie van de wizard te voltooien.



17. Klik op *Deliver* om de opdrachten uit te voeren. Controleer de *Save run configuratie to device's startup* check box als u de configuratie wilt opslaan

Deliver Configuration to Device	
Deliver delta commands to the device's running config.	
Preview commands that will be delivered to the device's running configuration. crypto ipsec transform-set ESP-3DES-SHA esp-sha-hinac esp-3des mode transport exit crypto ipsec profile CiscoCP_Profile1 set transform-set ESP-3DES-SHA exit	
Interface Tunnel0 exit default interface Tunnel0 interface Tunnel0 handwidth 1000	× ×
The differences between the running configuration and the startup configuration are the device is turned off.	lost whenever
Save running config. to device's startup config. This operation can take several minutes. Deliver Cancel Save to file Help	

CLI-configuratie voor Spoke

De hiermee samenhangende CLI-configuratie wordt hier getoond:

Spoelrouter

```
crypto ipsec transform-set ESP-3DES-SHA esp-sha-hmac
esp-3des
mode transport
exit
crypto ipsec profile CiscoCP_Profile1
set transform-set ESP-3DES-SHA
exit
interface Tunnel0
exit
default interface Tunnel0
interface Tunnel0
bandwidth 1000
delay 1000
ip nhrp holdtime 360
ip nhrp network-id 100000
ip nhrp authentication DMVPN_NW
ip ospf network point-to-multipoint
ip mtu 1400
no shutdown
ip address 192.168.10.5 255.255.255.0
ip tcp adjust-mss 1360
ip nhrp nhs 192.168.10.2
ip nhrp map 192.168.10.2 209.165.201.2
tunnel source FastEthernet0
tunnel destination 209.165.201.2
tunnel protection ipsec profile CiscoCP_Profile1
tunnel key 100000
exit
router ospf 10
network 192.168.10.0 0.0.0.255 area 2
network 172.16.18.0 0.0.0.255 area 2
exit
crypto isakmp key ******* address 209.165.201.2
crypto isakmp policy 2
authentication pre-share
encr aes 192
hash sha
group 1
lifetime 86400
exit
crypto isakmp policy 1
authentication pre-share
encr 3des
hash sha
group 2
lifetime 86400
exit
```

Hub-configuratie met Cisco-CP

Een stap-voor-stap benadering van de configuratie van de hubrouter voor DMVPN wordt in deze sectie getoond.

1. Ga om *te configureren > Beveiliging > VPN > Dynamisch multipoint VPN* en selecteer de optie *Een hub maken in een DMVPN*-optie. Klik op *Start de geselecteerde taak*.

Create Dynamic Multipoint VPN (DMVI Spoke 1 Spoke 2	PN) Edit Dynamic Multipoint VPN (DMVPN)	
Create a spoke (client) in a DMVF Use this option to configure the and spoke network topology. To	PN router as a spoke in a full mesh or hub o complete this configuration, you must	
know the hub's IP address, NH policy, IPSec Transform set and	RP information, pre-shared key, IKE d dynamic routing protocol information.	
• Create a hub (server or head-end	d) in a DMVPN	
Use this option to configure the are configuring a backup hub, y information, pre-shared key, IKI dynamic routing protocol inform	o router as a primary or backup hub. If you you must know the primary hub's NHRP E policy, IPSec Transform set and hation.	
	Launch the selected task	

2. Klik op *Volgende*.

DMVPN Hub Wizard	
VPN Wizard	Configure a DMVPN hub
	DMVPN allows you to create a scalable network that connects multiple remote routers to a central hub router using the same security features offered by site-to-site VPNs. DMVPN uses IPSec, NHRP, GRE and routing protocols to create secure tunnels between a hub and a spoke. This wizard allows you to configure the router as a DMVPN hub. The wizard guides you through these tasks: * Specifying the DMVPN network topology. * Specifying the hub type. * Configuring a multipoint GRE tunnel. * Configuring a pre-shared key. * Configuring a pre-shared key. * Configuring an IPSec transform set. * Configuring a lPSec transform set. * Configuring a dynamic routing protocol. To begin, click Next.
	< Back Next > Finish Cancel Help
Salastaar da antia Uu	uh and Snaka Natwark on klik on

3. Selecteer de optie *Hub and Spoke Network* en klik op *Volgende*.



4. Selecteer *Primaire hub*. Klik vervolgens op *Volgende*.

VPN Wizard	Type of Hub In a DMVPN network there will be a hub router and multiple spoke routers connecting to the hub. You can also configure multiple routers as hubs. The additional routers will act as backups. Select the type of hub you want to configure this router as.
	Primary hub
	C Backup Hub(Cisco CP does not support backup hub configuration on this router)

5. Specificeer de interfaceparameters van de Tunnel en klik op *Geavanceerd*.

PN Wizard	Multipoint GRE Tunnel Inter	face Configura	tion			
er one one and and	Select the interface that con	Select the interface that connects to the Internet: (GigabitEthernet0/0)				
	Selecting an interface co be always up.	infigured for a d	ialup connection may cause the connection			
	A GRE tunnel interface will address information for th) i unnei interta I be created for is interface. nel interface	this DMVPN connection. Please enter the Advanced settings			
	IP Address:	ion milendee	Click Advanced to verify that values match peer settings.			
	192,168,10,2					
	Subnet Mask:	17.5				
	255.255.255.0	24				
	Interface connected to Internet. This is the interface from which GRE/mGRE Tunnel originaties-	Logic IP ad are p in the For n help	al GRE/mGRE Tunnel interface. dress of GRE/mGRE tunnel ace on all hubs and spoke routers rivate IP addresses and must be a same subnet. nore information please click the button.			

6. Specificeer de tunnelparameters en NHRP-parameters. Klik vervolgens op

from your network administrator t Cisco CP defaults.	pefore changin
NHRP	
NHRP Authentication String:	DMVPN_NW
NHRP Network ID:	100000
NHRP Hold Time:	360
Tunnel Key:	100000
Bandwidth:	1000
MTU:	1400
Tunnel Throughput Delay:	1000

7. Specificeer de optie op basis van uw netwerkinstellingen.



8. Selecteer *Voorgedeelde toetsen* en specificeer de voorgedeelde toetsen. Klik vervolgens op *Volgende*.

DMVPN Hub Wizard (Hub	and Spoke Topology) -	40% Complete		X
VPN Wizard	Authentication Select the method you w DMVPN network. You ca the router must have a v on this router must mate © Digital Certificates © Pre-shared Keys pre-shared key: Reenter key:	vant to use to auth n use digital certif alid certificate con the keys configu	enticate this router to the per icate or a pre-shared key if o figured. If pre-shared key is ured on all other routers in th	er device(s) in the digital certificate is used, used, the key configured e DMVPN network.
			< Back (Next >) Finis	Cancel Help

9. Klik op *Toevoegen* om een afzonderlijk IKE-voorstel toe te voegen.

DMVPN Hub Wizard (Hub and Spoke Topology) - 50% Complete

VPN Wizard

IKE I IKE I meti

IKE Proposals

IKE proposals specify the encryption algorithm, authentication algorithm and key exchange method that is used by this router when negotiating a VPN connection with the remote device. For the VPN connection to be established with the remote device, the remote device should be configured with at least one of the policies listed below.

Click the Add... button to add more policies and the Edit... button to edit an existing policy.

ALL		Priority	Encryption	Hash	D-H Group	Authentication	Туре
		1	3DES	SHA_1	group2	PRE_SHARE	Cisco CP Defa
mark 1							
Contraction of the second							
-							
P-1							
Anna A	0	Add	Edit.				
11m	t						
. / UE							
					< Back Ne	t> Finish C	ancel Hel

10. Specificeer de parameters voor codering, verificatie en hantering. Klik vervolgens op

Priority:	Authentication:	
2	PRE_SHARE	
Encryption:	D-H Group:	
AES_192 💙	group1 🔽	
Hash:	Lifetime:	
SHA_1	24 0 0 HH:MM:S	

11. Het nieuwe IKE-beleid is hier te zien. Klik op *Volgende*.

VPN Wizard	IKE Propos IKE propos method tha device. For device sho Click the A	sals als specify the er it is used by this r the VPN connect uld be configured idd button to ad	ocryption algo outer when r ion to be esta with at least d more polici	rithm, authentical legotiating a VPN ablished with the r one of the policie es and the Edit	tion algorithm an connection with remote device, th s listed below. button to edit an	d key exchange the remote e remote existing policy.
	Pric	ority Encryption	Hash	D-H Group	Authentication	Type
100	1	3DES	SHA_1	group2	PRE_SHARE	Cisco CP Defa
		, <u>,,,,</u> ,,,,		groups		Cool Dominu
	Add	Edit.				ça î
				< Back (Ne	Co Finish	Cancel Help

12. Klik op *Volgende* om door te gaan met de standaardinstelling voor het omzetten.

VDN Minord	Trapefor	n Sat			
VPN Wizard	A transform data in the communit one select Click the A transform Select Tra	m set specifies to VPN tunnel. Sin cate, the remote ted below. Mdd button to ac set. insform Set: co CP Default Tr	he encryption and auth ce the two devices mu device must be config id a new transform se ansform Set	nentication algorith ist use the same a ured with the sam t and the Edit bu	nms used to protect th algorithms to e transform set as the tton to edit the specifi
	Details	s of the specified	transform set		
		Name	ESP Encryption	ESP Integrity	AH Integrity
		SP-3DES-SHA	ESP_3DES	ESP_SHA_HMAC	

13. Selecteer het gewenste routingprotocol. Hier is *OSPF* geselecteerd.

DMVPN Hub Wizard (Hub	and Spoke Topology) - 70% Complete
VPN Wizard	Select Routing Protocol Routing protocols are used to advertise private networks behind this router to other routers in the DMVPN. Select the dynamic routing protocol you want to use. Note: You can only create as many OSPF processes as the number of interfaces that are configured with an IP address and have the status administratively up. C EIGRP COSPFI
	< Back Next > Finish Cancel Helt

14. Specificeer de OSPF-proces-ID en -id. Klik op *Add* om de netwerken toe te voegen die door OSPF moeten worden geadverteerd.



- 15. Voeg het tunnelnetwerk toe en klik op OK.
- 16. Voeg het privé netwerk achter de router van de Hub toe en klik *Volgende*.

Wizard	Routing Informatio	n		
	C Select an existin	g OSPF process ID		37
	· Create a new Os	SPF process ID:		10
	OSPF Area ID for tu	unnel network:		2
	Private network	n the other routers t	OSPF	serve these adventisements.
	Network	Wildcard Mask	Area	Add
	1102 169 10 0	0.0.0.255	2	
	172.16.20.0	0.0 0.255	2	E dit.
	Private Network	0.0.0.255	2	Tielete
	Private Network advectived to the	0.0 0.255	2	Delpte

17. Klik op *Voltooien* om de configuratie van de wizard te voltooien.



18. Klik op Deliver om de opdrachten uit te

voeren.



CLI-configuratie voor hub

Gerelateerde CLI-configuratie wordt hier weergegeven:

Hub router
!
crypto isakmp policy 1
encr 3des
authentication pre-share
group 2
!
crypto isakmp policy 2
encr aes 192
authentication pre-share
crypto isakmp key abcaizs address 0.0.0.0 0.0.0.0
:
sha-hmac
mode transport
crypto ipsec profile CiscoCP Profile1
set transform-set ESP-3DES-SHA
1
interface Tunnel0
bandwidth 1000
ip address 192.168.10.2 255.255.255.0
no ip redirects
ip mtu 1400
ip nhrp authentication DMVPN_NW
ip nhrp map multicast dynamic
ip nhrp network-id 100000

```
ip nhrp holdtime 360
ip tcp adjust-mss 1360
ip ospf network point-to-multipoint
delay 1000
tunnel source GigabitEthernet0/0
tunnel mode gre multipoint
tunnel key 100000
tunnel protection ipsec profile CiscoCP_Profile1
!
router ospf 10
log-adjacency-changes
network 172.16.20.0 0.0.0.255 area 2
network 192.168.10.0 0.0.0.255 area 2
```

De DMVPN-configuratie bewerken met CCP

U kunt de bestaande DMVPN-tunnelparameters handmatig bewerken wanneer u de tunnelinterface selecteert en op *Bewerken* klikt.

VPN				
reate Dynamic Multipo	int VPN (DMVPN)	Edit Dynamic	: Multipoint VPN (DMVPN)	Add
Interface	IPSec Pri	ofile	IP Address	Description
Tunnel0	CiscoCP_	Profile 1	192.168.10.2	«None»
Details for interface Tur	nnelO:			
Details for interface Tur Item Name	nnel0:		Item Value	
Details for interface Tur Item Name Interface	nnelO:		Item Value Tunnel0	
Details for interface Tur Item Name Interface IPSec Profile	nnelD:		Item Value Tunnel0 CiscoCP_Profile1	
Details for interface Tur Item Name Interface IPSec Profile IP Address	nnel0:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2	
Details for interface Tur Item Name Interface IPSec Profile IP Address Description Tunnel Bandwidth	nnel0:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 <none> 1000</none>	
Details for interface Tur Item Name Interface IPSec Profile IP Address Description Tunnel Bandwidth MTU	nnelO:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 <none> 1000 1400</none>	
Details for interface Tur Item Name Interface IP Sec Profile IP Address Description Tunnel Bandwidth MTU NHRP Authentication	nnel0:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 <none> 1000 1400 DMVPN_NW</none>	
Details for interface Tur Item Name Interface IPSec Profile IP Address Description Tunnel Bandwidth MTU NHRP Authentication NHRP Network ID	nnel0:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 <none> 1000 1400 DMVPN_NWY 100000</none>	
Details for interface Tur Item Name Interface IPSec Profile IP Address Description Tunnel Bandwidth MTU NHRP Authentication NHRP Network ID NHRP Hold Time	nnel0:		Item Value Tunnel0 CiscoCP_Profile1 192.168.10.2 <none> 1000 1400 DMVPN_NW 100000 360</none>	

De de interfaceparameters van de tunnels zoals MTU en de sleutel van de Tunnel, worden gewijzigd onder het *tabblad Algemeen*.

eneral NHRP I	Routing
IP address:	192.168.10.2
Mask:	255.255.255.0 24
- Tunnel Source:	
Interface:	GigabitEthernet0/0
C IP address:	
• Tunnel Destination	: . int GRE Tunnel
Tunnel Destination This is an multipo P / Hostname:	int GRE Tunnel
Tunnel Destination This is an multipo This is an multipo The / Hostname: PSec Profile:	int GRE Tunnel CiscoCP_Proti Add 1400
Tunnel Destination This is an multipo P / Hostname: PSec Profile: MTU: Bandwidth:	int GRE Tunnel CiscoCP_Proti Add 1400 1000
Tunnel Destination This is an multipo This is an multipo The rest of the rest	CiscoCP_Profi Add CiscoCP_Profi Add 1400 1000 1000

1. NHRP-gerelateerde parameters worden gevonden en aangepast volgens het vereiste onder het *NHRP*-tabblad. Voor een bepaalde router, zou u NHS als het IP adres van de Hub router moeten kunnen bekijken. Klik op *Add* in de sectie NHRP Map om de NHRP-mapping toe te

General	Rodang		
Authentication Str	ing:	DMVPN_NAV	
Hold Time:	E	360	
Network ID:	E	00000	
Next Hop Serv	ers		
Next Hop Ser	vers	A	Vdd
		Di	slete
NHRP Map	Mask		stete:
NHRP Map Destination «None»	Mask «None»		add
NHRP Map Destination «None»	Mask «None»		kidd)
NHRP Map Destination «None»	Mask «None»		kdd ddl ddl
NHRP Map Destination «None»	Mask «None»		vdd) Idil Hete -

2. Afhankelijk van de netwerkinstelling kunnen NHRP-kaartparameters worden ingesteld zoals

Statically configure the	e IP-to-NMBA address mapping
of IP destinations co	nnected to a NBMA network.
Destination reach	able through NBMA network
IP Address:	
Mask (Optional)	
NBMA address di	rectly reachable
IP Address.	
Configure NBMA addr or multicast packets to C Dynamically add s IP address of NBM	esses used as destinations for broadcas be sent over a tunnel network. pokes' IP addresses to hub's multicast ca MA address directly reachable

De routing-gerelateerde parameters worden bekeken en aangepast onder het tabblad Routing.

hieronder wordt weergegeven:

	9
Routing Protocol:	OSPF 💽
Ø OSPF	
OSPF Network Type:	point-to-multipoint
OSPF Priority:	
Hello Interval:	
Dead Interval:	

Meer informatie

De DMVPN-tunnels zijn op deze twee manieren geconfigureerd:

- Spoke-to-Spoke communicatie via de hub
- Spoke-to-Spoke communicatie zonder de hub

In dit document wordt alleen de eerste methode besproken. Om de bouw van sprak-aan-sprak dynamische IPSec tunnels toe te staan, wordt deze benadering gebruikt om de toespraak aan de DMVPN wolk toe te voegen:

- 1. Start de wizard DMVPN en selecteer de optie Spoelconfiguratie.
- 2. Selecteer in het venster *DMVPN Network Topology* de optie *Full-*netwerk in plaats van de *hub en de* optie *Spokenetwerk*.



3. Voltooi de rest van de configuratie met dezelfde stappen als de andere configuraties in dit document.

< Back Next >

Finish

Cancel

Help

Verifiëren

Er is momenteel geen verificatieprocedure beschikbaar voor deze configuratie.

Gerelateerde informatie

- <u>Cisco Dynamic Multipoint VPN: Eenvoudig en beveiligd Vestiging-aan-</u>
 <u>Vestigingscommunicatie</u>
- IOS 12.2 Dynamic Multipoint VPN (DMVPN)
- <u>Technische ondersteuning en documentatie Cisco Systems</u>